UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: DEC 0 2 2002

Subject: Review of Region 5 Data for **Himco Dump**

From: **Stephen Connet, Chemist, IITRI/ESAT**
Contractor to Region 5 Central Regional Laboratory
Submitted to CRL on 11-27-02

To: U.S Geological Survey

Attached are the results for: **Himco Dump**

CRL data set number: **E2K0101**

Samples analyzed for: **GFAA Antimony, Arsenic, Cadmium, Lead, Selenium, Thallium**

Results are reported for sample designations: **E2K0101-02, -04 thru -06**

Sylvia Griffin DEC 0 2 2002

Data Management Coordinator and Date Received

Date Transmitted: DEC 0 2 2002

Please have the U.S. EPA Project Manager/Officer call the CRL Sample Coordinator at 3-7444 for any comments or questions.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML-10C

_____ / /

Received by and Date

Comments:

Rev. 4/10/02

Method: GFAA for Water
Site: Himco Dump
Date: November 22, 2002
Prepared by: Stephen Connet

TDF: 5-02-081
IITRI Job #: 249-0-1476-102-054-001
Task Order #: 05-0-02
Data Set: E2K0101

NARRATIVE

Four (4) water samples from the Himco Dump site were collected on October 31, 2002 and were properly preserved by CRL on November 1, 2002. The samples were submitted to ESAT for analysis of antimony, arsenic, cadmium, lead, selenium, and thallium by GFAA. The sample point identifications are on the page following this narrative.

The samples were digested following standard CRL 200.2 hot block water digestion protocols (CRL SOP METALS025) on November 4, 2002 (digestion batch EK20401). The set was redigested as under the same digestion batch number due to a spilled sample on November 12, 2002. Analyses were performed using 200.9 methods on the SIMAA 6000 (CRL SOP METALS017) using multi-element programs except for antimony and thallium, which were analyzed using the single element programs. Due to QC problems, cadmium was reanalyzed on the PE5100 using method 213.2 (CRL SOP METALS022). The concentrations for the LCS and matrix spike were changed per Dr. J. V. Morris of CRL. QC limits are based on ESAT control limits.

Samples E2K0101-04/-05 are field duplicates and do not show good correlation. No results are qualified for field duplicates. E2K0101-02 is a field blank. No qualifications are made for field blank contamination. Although the arsenic duplicate difference for E2K0101-06 is greater than the MDL, both the sample and the duplicate results are less than the MDL; therefore the duplicate difference is considered acceptable. Although the duplicate difference for selenium is greater than the MDL, both sample and duplicate results are reported from diluted samples and the raw values are less than the MDL; therefore the duplicate difference for selenium is considered acceptable. The matrix spike recoveries for selenium and thallium are less than the acceptable limit; all selenium and thallium results are flagged "L" and are considered estimated. The matrix spike from the November 4 digestion of the samples was run for verification of both matrix spike concentrations with similar results. All other QC were within limits; all other sample results are acceptable. All samples were analyzed within the holding time limit.

Non-detect results are reported to the reporting limit (RL). Results between the method detection limit (MDL) and the RL are reported as the instrument value with an "J" flag. The presence of interference required some samples to be diluted in order to meet analytical spike recovery criteria. The following reported values are adjusted for dilution: E2K0101-04, -05 and -06 for lead; E2K0101-04, -05 and -06 for selenium; E2K0101-04, -05 and -06 for thallium. Where appropriate, reported values are dilution corrected.

Analytical results, narrative, QC forms and run summaries were stored in the following database files:
Path: R5CRL\VOL2\IITRI-METALS\SCONNET\E2K0101
Results: \6000-Sb\111502A for antimony,
\6000-AsSe\111902A, \112002 and \112002A for arsenic and selenium,
\5100-Cd\111502 for cadmium,

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11-22-02